

**LASOS**

For worldwide photonics

**LASOS<sup>®</sup> DPSS laser series**



Single frequency diode-pumped  
solid state laser modules





## Single frequency diode-pumped solid-state laser modules



### LASOS® DPSS laser series

The LASOS® DPSS laser series is the best choice when reliability and long lifetime matters. The special optical design and an intelligent power and temperature control guarantee

- Excellent long-term stability
- Low noise
- Exceptional good beam quality
- Long lifetime

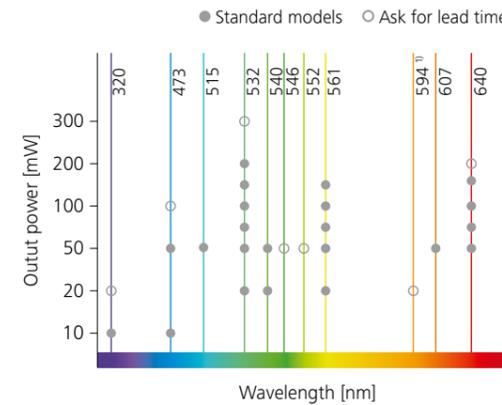
These characteristics are ideal for a variety of applications as in DNA sequencing, flow cytometry, digital imaging, analytical chemistry, fast-flow-rate particle measurements or confocal microscopy. Since all laser models emit only a single longitudinal mode they are also an ideal choice for application in Raman- spectroscopy. Housed in compact and robust packages, these lasers are the perfect choice for design in and integration into OEM instrumentation and systems and also for end user applications in research and development. The lasers will be provided as self-contained laser modules, as OEM-component modules or as fully integratable subsystems, with a compact controller as OEM or stand alone version with computer interfacing.

Customized solutions for specific applications are possible. All laser models can be provided with a polarization maintaining, adjustment free fiber coupling.

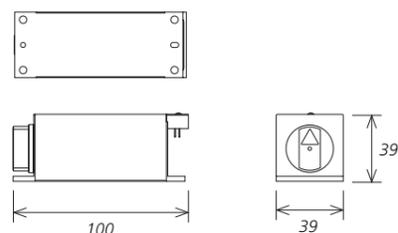
| Model key  | DLK▼                  | BLK▼ | GLK▼▼▼▼ |     |           |     | YLK▼▼▼    |     |                   | RLK▼▼▼ |     |
|--|-----------------------|------|---------|-----|-----------|-----|-----------|-----|-------------------|--------|-----|
| Wavelength [nm]                                  | 320                   | 473  | 515     | 532 | 540       | 546 | 552       | 561 | 594 <sup>1)</sup> | 607    | 640 |
| Max. output power [mW] <sup>2)</sup>             | 20                    | 100  | 50      | 300 | 50        | 50  | 50        | 150 | 20                | 50     | 200 |
| Max. beam divergence [mrad]                      | 1                     | 1.1  | 1.2     | 1.2 | 1.2       | 1.2 | 1.3       | 1.3 | 1.3               | 1.4    | 1.4 |
| Beam diameter [mm]                               | 0.7 (0.32 on request) |      |         |     |           |     |           |     |                   |        |     |
| Beam ellipticity                                 | 0.8...1.2             |      |         |     | 0.9...1.1 |     |           |     | 0.9...1.1         |        |     |
| Beam quality M <sup>2</sup> (TEM <sub>00</sub> ) | < 1.2                 |      |         |     |           |     | < 1.2     |     |                   |        |     |
| Power stability (8 h) [%]                        | < ± 1                 |      |         |     |           |     | < ± 1     |     |                   |        |     |
| Wavelength stability (8 h) [nm]                  | < ± 0.002             |      |         |     |           |     | < ± 0.002 |     |                   |        |     |
| Pointing stability [µrad/K]                      | < 6                   |      |         |     |           |     | < 6       |     |                   |        |     |
| Line width [MHz] <sup>3)</sup>                   | < 1                   |      |         |     |           |     | < 1       |     |                   |        |     |
| RMS noise (30 Hz-10 MHz) [%]                     | < 2                   |      | < 0.5   |     |           |     |           |     | < 2               |        |     |
| Polarization ratio (vertical)                    | > 200:1               |      |         |     |           |     | > 200:1   |     |                   |        |     |
| Warm up time [min]                               | < 10                  |      |         |     |           |     | < 10      |     |                   |        |     |

**For enquiries specify:**  
 Model key Wavelength (last two digits) Output power (mW) TS  
 (Example for GLK 532 nm with 50 mW output power: GLK 3250 TS)

- <sup>1)</sup> Longitudinal multimode operation
- <sup>2)</sup> Output power available for different wavelengths (see figure to the right)
- <sup>3)</sup> Allan Deviation for sample period < 0.5 s

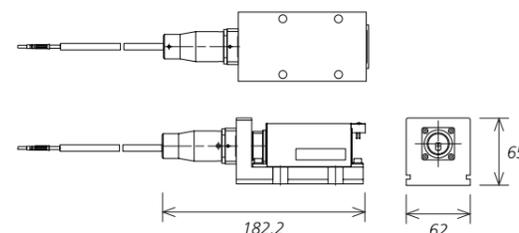


Dimensions laser head [mm]:



The laser head is available with shutter for stand alone application and without shutter as OEM version.

Dimensions laser head fiber coupled [mm]:

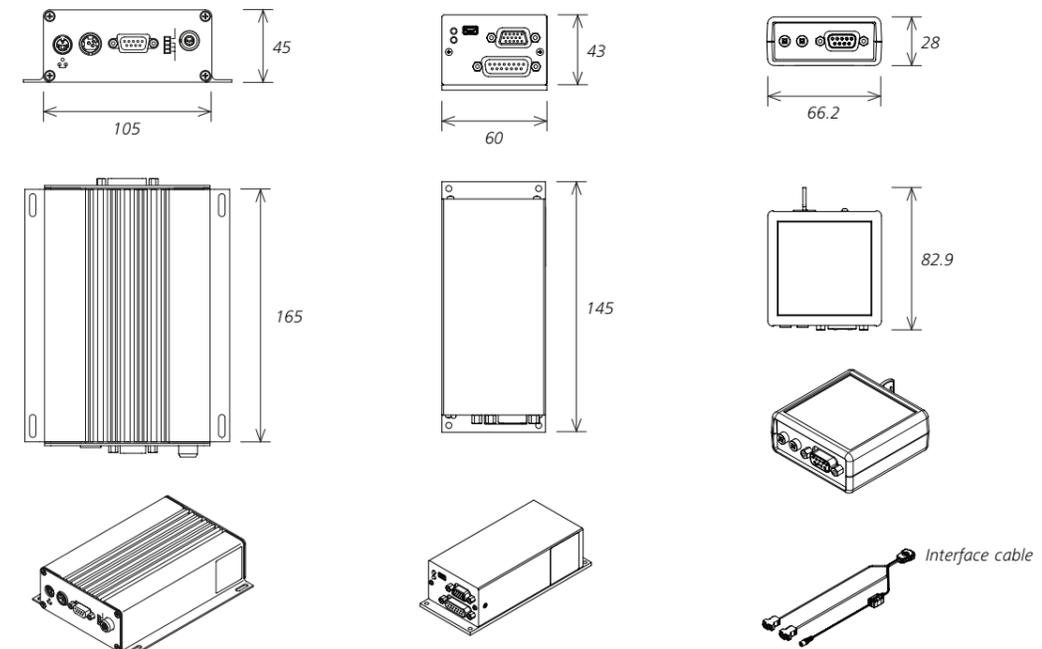


Option:  
 - Fiber coupling single mode, polarization maintaining or multi-mode  
 - Coupling efficiency > 70%  
 - For details refer to the LASOS Fiber series catalogue

### Controller

|  | CKL 2400 / 2405 / 2440            | CKL 1000 / 1005 | CKL 1000 / 1005 with stand alone kit |
|--|-----------------------------------|-----------------|--------------------------------------|
| Interface                                  | RS232                             | USB 2.0         | USB 2.0 and RS232                    |
| Options                                    | CDRH and OEM versions             | OEM versions    | CDRH compliant                       |
|  | Available as PCB in eurocard size |                 | Switch Box, cable and power supply   |
| Operating voltage                          | 12 or 24 VDC                      | 12 or 24 VDC    | 12 or 24 VDC                         |
| Controller cable length                    | 1 or 2 m                          | 1 or 2 m        | 1 or 2 m                             |
| Operating current (at 24 V input voltage): |                                   |                 |                                      |
| Typical                                    | < 0.6 A                           | < 0.6 A         | < 0.6 A                              |
| Maximum                                    | 2 A                               | 2 A             | 2 A                                  |

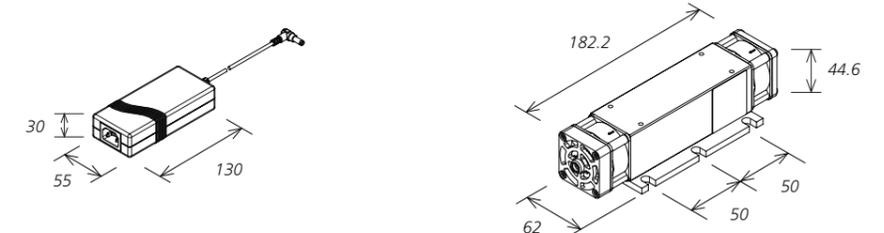
Dimensions [mm]:



### Optional accessory

|   | Power supply 24 V / 3 A                      | Heat sink LHA 2400              |
|---|--|---------------------------------|
| Operating voltage                             | 100-240 VAC                                  | 24 VDC                          |
| Operating current                             | 1.5 A  | 84 mA                           |
| Remark  | Part of CKL 1000 / 1005 with stand alone kit | Recommended for all laser heads |
| Optional accessory for CKL 2400 / 2405 / 2440 |  |                                 |

Dimensions [mm]:



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